



हिंदुस्तान उर्वरक एवं रसायन लिमिटेड
HINDUSTAN URVARAK & RASAYAN LTD.

(A Joint Venture of NTPC, CIL, IOCL, FCIL & HFCL)
P.O.-Barauni Urvarak Nagar, Begusarai-851115 (Bihar)

Date: 18.09.2025

To,

Mr. Suresh P Roy,
Regional Officer,
Bihar State Pollution Control Board,
Barauni Industrial area,
Begusarai.

Ref: MoEF&CC, Environmental Clearance Letter No. J-11011/371/2016-IAII (I) dated 29.08.2017.

Sub: Environmental Statement for the financial year ending 31st March 2025.

We are submitting herewith the environmental statement for the financial year ending 31st March 2025 in respect of Ammonia & Urea production plant.

This is for your kind information.

Thanking you.

For & on behalf of
HURL, Barauni.


Srinu Pitta
Manager (Environment & Quality Control)

Encl: Environmental Statement for the financial year ending 31st March 2025.

ENVIRONMENTAL STATEMENT FOR THE PERIOD 01.04.2024 TO 31.03.2025

(Submitted as per Rule-14 of the Environment (Protection) Amendment Rules, 1993 of the Environment (Protection) Act, 1986 (29 of 1986) published vide Notification dated 22.04.1993-G.S.R. 386(E) in the Gazette of India (Extraordinary) Part-II Section-3 Subsection (i). No.155 dated 28.04.1993 by the Ministry of Environment and Forests, Government of India; read with the Notification dated 13.02.1993 G.S.R. 329 (E) of the Gazette of India (Extraordinary) Part-II Section-3 Subsection (i) No. 120 dated 13-03-1993)

"FORM - V" (See Rule 14)

PART-A

GENERAL INFORMATION

1. Company Name : Hindustan Urvarak & Rasayan Limited
2. Occupier's Name : Shri. Sanjai Kumar Gupta
3. Registered Office of the Company: Hindustan Urvarak & Rasayan Limited
with address Core-2, 2nd Floor, SCOPE Minar Laxmi Nagar
District Centre, New Delhi, Delhi 110092
Tel.: 011-22502267
4. Factory Address : Hindustan Urvarak & Rasayan Limited
Barauni, Urvarak Nagar, Begusarai-851115
5. Production capacity : Ammonia- 2200 MTPD
Urea-3850 MTPD
6. Establishment Year : Hindustan Urvarak & Rasayan Limited (HURL) was
incorporated on 15th June, 2016 as joint venture
company by CIL, NTPC, IOCL as the lead promoters
with HFCL & FCIL as two other partners
7. Date of Last Environmental Statement submitted : 7th Environmental statement.



PART - B

Water and Raw Materials Consumption

(1) Water consumption m³/day:

Category	During the previous* financial year (2023-24)	During the current financial year (2024-25)
Process (m ³ /Day)	14711	12089
Cooling (m ³ /Day)	12862	13396
Domestic (m ³ /Day)	941	1227

Water consumption per MT of Product Output:

Name of Product	During the previous * financial year (2023-24) (m ³ /MT)	During the current financial year (2024-25) (m ³ /MT)
Urea	5.06	5.16

(2) Raw Material Consumption -

* Nature of consumption	Process Raw Material Consumption per unit of product output		
	Quality of product	During the previous* financial year (2023-24)	During the current financial year (2024-25)
Natural Gas	Natural Gas	622 Sm ³ /MT	643

* Industry may use codes if disclosing details of raw materials would violate contractual obligations, otherwise all industries have to name the raw materials used.

PART - C

Pollution discharged to environment/unit of output.

(Parameter as specified in the consent issued)

Pollutants	Quantity of pollutants discharged (mass/day)	Concentration of pollutants in discharges (mass/volume)	Percentage of variation from prescribed standards with reasons
(a) Water	Nil	NA	NA
(b) Air	Ambient Air Quality Monitoring data near site is attached as Annexure-1.	Ambient Air Quality Monitoring data near site is attached as Annexure-1.	Within prescribed standards (24/8/1 hourly Avg.)

STACK EMISSION TEST:

The emission data is attached as Annexure-1.

PART - D

HAZARDOUS WASTES

(As specified under Hazardous Wastes/Management and Handling Rules 1989)

Hazardous Wastes	Total Quantity (kg)	
	During the previous* financial year (2023-24)	During the current financial year (2024-25)
(a) From process	Nil	Nil
(b) From pollution control facilities	Nil	Nil

PART - E

SOLID WASTE

	Total Quantity	
	During the previous financial year (2023-24)	During the current financial year (2024-25)
a) From process	~100 MT (Chemical sludge from waste water treatment)	~150 MT (Chemical sludge from waste water treatment) ~ 25 MT ZLD salt
b) From pollution control facilities	NA	NA
c) Quantity recycled or reutilized within the Unit.	NA	NA
d) Sold	NA	NA
e) Disposed	NA	NA

PART - F

Please specify the characterizations (in terms of composition and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes.

HURL has adopted waste management plan conforming to different National and local regulations. An Agreement was made with M/s MSTC. Various Wastes mentioned in the Authorization no. HW/B-1934 Patna-10 dated 20.07.2022 shall be sold/disposed as the need arises.

PART - G

Impact of the pollution abatement measures taken on conservation of natural resources and on the cost of production.

HURL is monitoring parameters such as groundwater, surface water and ambient air quality within the plant premises and also outside premise as per EC norms.

PART - H

Additional measures / investment proposed for environmental protection including abatement of pollution, prevention of pollution.

Some of the measures adopted in the design stage itself of the project are mentioned below:

- Plant is based on zero liquid discharge concept i.e.; effluent water is being treated and reused.



- Continuous monitoring of particulate matter, NO_x & SO_x from all stacks; particulate matter and NH₃ from prilling tower is being done to control emission as per norms.
- Installed gas detectors at different locations to check fugitive emissions.

PART - I

Any other particulars in respect of environment protection and abatement of pollution.

Plant is based on natural gas as a raw material with state-of-the-art technology to minimize impact on surrounding environment. As per environment management plan (EMP) all required pollution control measures are adopted as integral part of the plant in design stage itself.

World Environment Day, World Water Day and World Forest Day was celebrated at HURL Barauni by planting various plants in plant and Township.

Plantation drive (Plantation of 7000 saplings) is going on to promote #Ek Ped Maa Ke Naam#Plant4Mother campaign initiated by Hon'ble Prime Minister.

Sd/-
18.09.25

Name & signature of the Occupier

Seal

Sd/-
18/9/25

SANJAI KUMAR GUPTA
Project Head
Hindustan Urvarak & Rasayan Ltd.
Urvarak Nagar, Barauni, Begusarai
(Bihar) 851115

Env. STATEMENT for CTO Compliance for the period April 2024 – September 2024 for**Ammonia –Urea (2200 MTPD & 3850 MTPD) plant of HURL at Barauni**

This Compliance Report is the fulfilments of the condition of the Environmental Clearance (EC) vide File No.EC [IA/BR/IND2/61377/2016, J-11011/371/2016-IA II (I)] for the period of April 2024 to September 2024. This report has been prepared by Nitya Laboratories by collecting respective samples in consultation with the State Pollution Control Board (SPCB) officials and Hindustan Urvarak and Rasayan Limited (HURL) officials. During the above mentioned period the analysis of the environmental parameters has been conducted by the MOEF&CC recognized Laboratory at Nitya Laboratories, Jammu.

The proposed project is located at Barauni and was commissioned on 18 November 2022 with the capacity of 2200MTPD Ammonia and 3850MTPD Urea in the District Begusarai in the state of Bihar. The commercial production has started from 19 November 2022 with the board name APNA UREA. The area falls in the agricultural belt of the Bihar.

The compliance report fulfils the 19 Nos of Specific Conditions and 17 Nos. of General Conditions led by Ministry of Environment, Forests and Climate Change Rainwater Harvesting and Ground Water charging has been proposed as per Standard Guidelines.

- Guidelines on Artificial Recharge of Water, Central Water Ground Board, Ministry of Water Resources, GoI (2000)
- Manual on Artificial Recharge of Ground Water, Central Water Ground Board, Ministry of Water Resources, GoI (2007)
- Rain Water Harvesting and Conservation Manual Consultancy Services Organization, CPWD, GoI (2002)

The Environmental Monitoring report of 6 months w.r.t Air, Water and Noise have been presented separately with the average values. The environmental conditions and the compliance have been found normal as per the Standards. The Air Quality results have been presented through a self-explanatory table with the NAAQ Standards w.r.t the parameter PM_{10} , $PM_{2.5}$, NO_x , SO_x , C_6H_6 , CO, Benzo(a) pyrene (BAP), NH_3 , Ozone, Nickel, Arsenic and Lead. Three sets each of Ground Water Samples and Surface Water Samples have been collected, analyzed in a self-explanatory table, and compared with Drinking Water Standards (IS 10500:2012). The analysis consists of eight nos. of physical parameters, thirteen no's of chemical parameters, nine no's of Heavy metals and three no's of miscellaneous parameters. Noise Quality has also been measured at six different locations in the periphery of the project area. The results have been presented through self-explanatory table consisting of the Standard NAAQS w.r.t noise.

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MANAGER (E&QC)HINDUSTAN URVARAK & RASAYAN LTD.
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Project Office- Urvarak Nagar, Barauni**CORPORATE OFFICE & CENTRAL LABORATORIES :-**

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The above report with respect to Air, Water and Noise represents the average values of different sampling stations collected at different time during the study period of April 2024 to September 2024.

TABLE- 1

Location of Air Quality Monitoring Stations

Sr. No.	Location of Station	Frequency
1.	HURL Admin Building(SA1)	Twice a Week
2.	Simariya Village(SA2)	Twice a Week
3.	HURL Residential Township(SA3)	Twice a Week
4.	Chackballi Refinery Road(SA4)	Twice a Week
5.	Chakya Village (SA5)	Twice a Week
6.	Bihat Village (SA6)	Twice a Week



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HURL BARAUNI, AIR QUALITY DATA – (April 2024 to September 2024)

Month	Parameters		NAAQS	HURL Admin Building(SA 1)	Simariya Village(SA 2)	HURL Residential Township(SA3)	Chackball Refinery Road(SA4)	Chakiy a Village (SA5)	Bihat Village (SA6)
			Standards						
April 2024	PM10	$\mu\text{g}/\text{m}^3$	100	58.54	58.10	57.52	58.13	57.58	56.97
	PM2.5		60	36.51	36.75	37.46	36.84	35.33	34.68
	SO ₂		80	11.31	11.22	10.84	11.96	10.52	10.97
	NO _x		80	16.27	14.11	13.18	16.93	19.68	15.86
	C6H6		5	ND	ND	ND	ND	ND	ND
	BAP	ng/m^3	1	ND	ND	ND	ND	ND	ND
	CO	mg/m^3	2	0.33	0.28	0.23	0.19	0.26	0.21
	NH ₃	$\mu\text{g}/\text{m}^3$	400	45.86	12.16	10.89	62.91	17.00	19.98
	Ozone		180	18.87	12.18	11.69	12.00	13.52	12.83
	Ni	ng/m^3	20	ND	ND	ND	ND	ND	ND
	As		6	ND	ND	ND	ND	ND	ND
	Pb	$\mu\text{g}/\text{m}^3$	1	ND	ND	ND	ND	ND	ND
May 2024	PM10	$\mu\text{g}/\text{m}^3$	100	57.99	56.77	56.56	58.19	56.90	56.59
	PM2.5		60	35.79	36.59	37.44	34.98	35.88	37.47
	SO ₂		80	11.99	11.55	11.93	12.61	12.06	11.97
	NO _x		80	16.82	13.73	13.64	16.66	20.12	16.39
	C6H6		5	ND	ND	ND	ND	ND	ND
	BAP	ng/m^3	1	ND	ND	ND	ND	ND	ND
	CO	mg/m^3	2	0.29	0.26	0.23	0.19	0.24	0.16
	NH ₃	$\mu\text{g}/\text{m}^3$	400	45.84	12.53	11.89	56.71	19.87	19.76
	Ozone		180	18.97	12.51	12.07	12.77	14.53	14.00
	Ni	ng/m^3	20	ND	ND	ND	ND	ND	ND
	As		6	ND	ND	ND	ND	ND	ND
	Pb	$\mu\text{g}/\text{m}^3$	1	ND	ND	ND	ND	ND	ND



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June 2024	PM10	$\mu\text{g}/\text{m}^3$	100	64.66	64.40	64.78	64.81	64.67	64.82
	PM2.5		60	41.45	38.48	39.00	40.55	39.53	38.83
	SO ₂		80	12.97	12.16	11.06	11.86	11.66	11.17
	NO _x		80	18.21	14.87	13.37	18.25	21.52	17.65
	C ₆ H ₆		5	ND	ND	ND	ND	ND	ND
	BAP	ng/m ³	1	ND	ND	ND	ND	ND	ND
	CO	mg/m ³	2	0.18	0.18	0.17	0.16	0.2	0.19
	NH ₃	$\mu\text{g}/\text{m}^3$	400	51.91	12.36	10.78	72.36	20.70	24.53
	Ozone		180	12.96	13.55	11.47	13.52	15.22	15.32
	Ni	ng/m ³	20	ND	ND	ND	ND	ND	ND
	As		6	ND	ND	ND	ND	ND	ND
	Pb	$\mu\text{g}/\text{m}^3$	1	ND	ND	ND	ND	ND	ND
July 2024	PM10	$\mu\text{g}/\text{m}^3$	100	61.85	61.09	60.95	61.14	61.29	61.24
	PM2.5		60	38.48	37.99	36.58	38.55	36.35	37.26
	SO ₂		80	13.31	12.71	12.83	13.90	13.19	13.30
	NO _x		80	18.64	16.54	16.03	17.61	19.54	18.39
	C ₆ H ₆		5	ND	ND	ND	ND	ND	ND
	BAP	ng/m ³	1	ND	ND	ND	ND	ND	ND
	CO	mg/m ³	2	0.19	0.20	0.21	0.19	0.18	0.19
	NH ₃	$\mu\text{g}/\text{m}^3$	400	47.48	14.56	12.83	68.11	19.73	22.91
	Ozone		180	13.35	13.88	13.40	14.78	15.63	16.76
	Ni	ng/m ³	20	ND	ND	ND	ND	ND	ND
	As		6	ND	ND	ND	ND	ND	ND
	Pb	$\mu\text{g}/\text{m}^3$	1	ND	ND	ND	ND	ND	ND
Aug 2024	PM10	$\mu\text{g}/\text{m}^3$	100	59.06	57.14	56.20	56.89	54.88	57.18
	PM2.5		60	37.34	34.19	33.79	35.85	33.19	35.00
	SO ₂		80	15.29	14.83	14.89	15.99	15.48	15.11
	NO _x		80	19.58	18.58	17.90	19.28	20.50	19.68
	C ₆ H ₆		5	ND	ND	ND	ND	ND	ND
	BAP	ng/m ³	1	ND	ND	ND	ND	ND	ND
	CO	mg/m ³	2	0.21	0.17	0.19	0.20	0.18	0.17
	NH ₃	$\mu\text{g}/\text{m}^3$	400	42.73	16.53	14.71	62.63	21.83	24.15
	Ozone		180	15.01	15.45	15.21	16.90	17.06	17.38
	Ni	ng/m ³	20	ND	ND	ND	ND	ND	ND

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Sep 2024	As		6	ND	ND	ND	ND	ND	ND
	Pb	µg/m3	1	ND	ND	ND	ND	ND	ND
	PM10	µg/m3	100	64.66	64.40	64.78	64.81	64.67	64.82
	PM2.5		60	41.45	38.48	39.00	40.55	39.53	38.83
	SO2		80	12.97	12.16	11.06	11.86	11.66	11.17
	NOx		80	18.21	14.87	13.37	18.25	21.52	17.65
	C6H6	ng/m3	5	ND	ND	ND	ND	ND	ND
	BAP		1	ND	ND	ND	ND	ND	ND
	CO		2	0.18	0.16	0.17	0.16	0.20	0.19
	NH3		400	51.91	12.36	10.78	72.36	20.70	24.53
	Ozone	µg/m3	180	12.96	13.55	11.47	13.52	15.22	15.32
	Ni	ng/m3	20	ND	ND	ND	ND	ND	ND
	As		6	ND	ND	ND	ND	ND	ND
	Pb		1	ND	ND	ND	ND	ND	ND
Average	PM10	µg/m3	100	61.14	60.32	60.15	60.83	60.00	60.27
	PM2.5		60	38.50	37.07	37.21	37.90	36.64	37.01
	SO2		80	12.97	12.41	12.10	13.03	12.43	12.28
	NOx		80	17.96	15.45	14.58	17.81	20.48	17.60
	C6H6	ng/m3	5	ND	ND	ND	ND	ND	ND
	BAP		1	ND	ND	ND	ND	ND	ND
	CO		2	0.23	0.21	0.20	0.18	0.21	0.19
	NH3		400	47.62	13.42	11.98	65.86	19.97	22.64
	Ozone	µg/m3	180	15.52	13.52	12.55	13.92	15.20	15.32
	Ni	ng/m3	20	ND	ND	ND	ND	ND	ND
	As		6	ND	ND	ND	ND	ND	ND
	Pb		1	ND	ND	ND	ND	ND	ND

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TABLE - 2

Noise Monitoring Assessment Schedule

Sr. No.	Source	Frequency
1.	HURL Admin Building (SN 1)	Once in a Month
2.	HURL Simariya Village (SN 2)	Once in a Month
3.	HURL Township (SN 3)	Once in a Month
4.	HURL Mahna Village (SN 4)	Once in a Month
5.	HURL Chakiya Village (SN 5)	Once in a Month
6.	Near Bihat Village(SN 6)	Once in a Month


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HURL BARAUNI, NOISE DATA (April 2024 to September 2024)								
Month	Parameters	Prescribed Limits in db(A) as per NAAQS Ind./Res. Area	HURL Admin Building(SA 1)	Simariya Village(SA 2)	HURL Residential Township(SA 3)	Checkbali Refinery Road(SA 4)	Chakiya Village (SA 5)	Bihat Village (SA 6)
April 2024	24 hrs. Avg Leq Value db (A)	-	65.40	67.40	67.20	66.60	61.80	64.50
	Day time Avg Leq Value db (A)	75/55/65	71.22	70.38	71.13	69.05	67.96	69.18
	Night time Avg Leq Value db (A)	70/45/55	62.16	64.42	65.36	60.59	55.33	57.22
May 2024	24 hrs. Avg Leq Value db (A)	-	66.90	67.50	68.80	64.20	62.10	62.90
	Day time Avg Leq Value db (A)	75/55/65	70.19	71.28	70.39	67.29	65.49	67.78
	Night time Avg Leq Value db (A)	70/45/55	63.21	63.25	66.39	61.21	56.63	56.24
June 2024	24 hrs. Avg Leq Value db (A)	-	68.40	65.30	70.20	61.50	49.40	49.90
	Day time Avg Leq Value db (A)	75/55/65	71.29	70.32	72.39	63.28	64.23	65.15
	Night time Avg Leq Value db (A)	70/45/55	65.20	61.43	68.12	60.12	55.34	54.14
July 2024	24 hrs. Avg Leq Value db (A)	-	64.60	64.70	66.90	61.90	58.10	60.50
	Day time Avg Leq Value db (A)	75/55/65	69.40	66.71	70.18	64.89	62.79	67.89
	Night time Avg Leq Value db (A)	70/45/55	62.96	59.68	66.35	58.79	53.22	52.89
Aug 2024	24 hrs. Avg Leq Value db (A)	-	63.60	62.70	66.90	60.90	55.20	62.80
	Day time Avg Leq Value db (A)	75/55/65	67.58	66.48	72.87	62.48	60.48	69.48
	Night time Avg Leq Value db (A)	70/45/55	60.58	57.85	64.85	59.63	51.96	52.89


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Sep 2024	24 hrs. Avg Leq Value db (A)	-	69.70	68.10	65.50	59.90	61.30	58.90
	Day time Avg Leq Value db (A)	75/55/65	73.69	72.65	69.68	67.85	65.89	63.99
	Night time Avg Leq Value db (A)	70/45/55	66.78	63.69	60.39	54.23	57.46	54.21
Average	24 hrs. Avg Leq Value db (A)	-	66.47	65.95	67.92	62.50	59.65	61.58
	Day time Avg Leq Value db (A)	75/55/65	70.90	69.97	71.27	65.91	64.47	67.25
	Night time Avg Leq Value db (A)	70/45/55	63.48	61.67	65.24	59.10	64.99	64.60


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Env. STATEMENT for CTO Compliance for the period April 2024 – September 2024 for

Ammonia –Urea (2200 MTPD & 3850 MTPD) plant of HURL at Barauni

TABLE - 3

Ground Water Quality Assessment Schedule

Sr. No.	Source	Parameters	Frequency
1.	HURL Plant (Bore-well)	As per IS: 10500	Once in a Month
2.	HURL Township (Hand Pump)	As per IS: 10500	Once in a Month
3.	Chakiya Village (Hand Pump)	As per IS: 10500	Once in a Month



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Ammonia –Urea (2200 MTPD & 3850 MTPD) plant of HURL at Barauni

HURL BARAUNI, GROUND WATER QUALITY DATA AVERAGE RESULT (April 2024 to September 2024)

(Results are expressed in mg/l, unless otherwise stated)

Sr. No.	Parameters	Average Analysis Results			Requirement (Acceptable)/Permissible Limits (IS:10500:2012)
		HURL Plant (Bore- well)GW-1	HURL Township (Hand Pump)GW- 2	Chakiya Village (Hand Pump)GW- 3	
PHYSICAL					
1.0	pH	7.33	7.28	7.10	6.5-8.5
2.0	Temperature	26.70	27.12	26.07	-
3.0	Colour	<5	<5	<5	5/15
4.0	Odour	ND	ND	ND	Agreeable
5.0	Taste	ND	ND	ND	Agreeable
6.0	Turbidity (NTU)	ND	ND	ND	1/5
7.0	Total Suspended Solids	15	20.50	21	-
8.0	Total Dissolved Solids	888.67	545.33	588.33	500/2000
CHEMICAL					
1.0	P-Alkalinity as (CaCO3)	ND	ND	ND	-
2.0	Total Alkalinity as (CaCO3)	285	321.67	253.33	200/600
3.0	Chloride as Cl	67	59.50	50.17	250/1000
4.0	Sulphate as (SO4)	26.47	32.58	69.25	200/400
5.0	Nitrate as (NO3)	0.55	0.55	0.94	45/NR
6.0	Fluoride as (F)	ND	ND	ND	1.0/1.5
7.0	Total Hardness as (CaCO3)	266.67	283.33	240	200/600
8.0	Calcium as Ca	87.67	77	81.33	-
9.0	Magnesium as Mg	39.97	41.04	28.27	-
10.0	Sodium as Na	33.57	21.40	33.82	-
11.0	Potassium as K	3.35	2.33	5.49	-

(Signature)

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Ammonia –Urea (2200 MTPD & 3850 MTPD) plant of HURL at Barauni

12.0	Silica as SiO ₂	21.24	7.21	13.27	-
13.0	Iron as Fe	ND	0.19	0.22	0.3/NR
HEAVY METALS					
1.0	Manganese as Mn	ND	ND	ND	0.1/0.3
2.0	Total Chromium as Cr	ND	ND	ND	0.05/NR
3.0	Lead as Pb	ND	ND	ND	0.01/NR
4.0	Zinc as Zn	0.56	0.23	0.24	5.0/15
5.0	Cadmium as Cd	ND	ND	ND	0.003/NR
6.0	Copper as Cu	ND	ND	ND	0.05/1.5
7.0	Nickel as Ni	ND	ND	ND	0.02/NR
8.0	Arsenic as As	ND	ND	ND	0.01
9.0	Selenium as Se	ND	ND	ND	0.01/NR
OTHERS					
1.0	Oil & Grease	ND	ND	ND	0.01/0.03
2.0	Phenolic compound as C ₆ H ₅ OH	ND	ND	ND	0.001/0.002
3.0	Total Coliform (MPN/100 ml)	Absent	Absent	Absent	-

NR= No Relaxation, *Calcium as Ca, ** Magnesium as Mg


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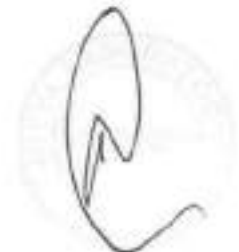
Ammonia –Urea (2200 MTPD & 3850 MTPD) plant of HURL at Barauni

TABLE - 4

Surface Water Quality Assessment Schedule

Sr. No.	Source	Parameters	Frequency
1.	Ganga River	As per IS: 10500	Once in a Month
2.	Bihat Village (Pond)	As per IS: 10500	Once in a Month
3.	Baya Nallah	As per IS: 10500	Once in a Month


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Env. STATEMENT for CTO Compliance for the period April 2024 – September 2024 for

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HURL BARAUNI, Surface Water Quality Data Average Result (April 2024 to September 2024)

(Results are expressed in mg/l, unless otherwise stated)

Sr. No.	Parameters	Average Analysis Results			Requirement (Acceptable)/P ermisissible Limits (IS: 10500:2012)
		Ganga River (SW1)	Bihat Village (Pond) (SW2)	Baya Nallah (SW3)	
PHYSICAL					
1.0	pH	7.62	7.55	7.85	6.5-8.5
2.0	Temperature	26.93	26.52	27.83	-
3.0	Colour	<5	<5	<5	5/15
4.0	Turbidity (NTU)	29	31.17	<1	1/5
5.0	Total Suspended Solids	17.17	40.33	19.88	-
6.0	Total Dissolved Solids	354.67	948.33	299.67	500/2000
CHEMICAL					
1.0	Total Alkalinity as (CaCO3)	153	288.33	158.83	200/600
2.0	Chloride as Cl	36	218.33	37.33	250/1000
3.0	Sulphate as (SO4)	23.88	48.65	21.94	200/400
4.0	Nitrate as (NO3)	1.01	0.47	0.29	45/NR
5.0	Fluoride as (F)	ND	ND	ND	1.0/1.5
6.0	Total Hardness as (CaCO3)	171.67	292.83	174.67	200/600
7.0	Calcium as Ca	68	68	71.33	-
8.0	Magnesium as Mg	13.21	44.28	7.54	-
9.0	Dissolved Oxygen	5.48	3.32	4.77	-
10.0	COD	31.87	111.67	40.67	-
11.0	BOD (3 days at 27°C)	6.20	24.83	7.17	-
12.0	Sodium as Na	31.37	30.83	24.88	-
13.0	Potassium as K	2.88	2.58	1.73	-

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Env. STATEMENT for CTO Compliance for the period April 2024 – September 2024 for

Ammonia –Urea (2200 MTPD & 3850 MTPD) plant of HURL at Barauni

HEAVY METALS					
1.0	Iron as Fe	0.16	ND	ND	0.3/NR
2.0	Manganese as Mn	ND	ND	ND	0.1/0.3
3.0	Total Chromium as Cr	ND	ND	ND	0.05/NR
4.0	Lead as Pb	ND	ND	ND	0.01/NR
5.0	Zinc as Zn	0.51	0.51	0.45	5.0/15
6.0	Cadmium as Cd	ND	ND	ND	0.003/NR
7.0	Copper as Cu	ND	ND	ND	0.05/1.5
8.0	Nickel as Ni	ND	ND	ND	0.02/NR
9.0	Arsenic as As	ND	ND	ND	0.01
10.0	Selenium as Se	ND	ND	ND	0.01/NR
OTHERS					
1.0	Oil & Grease	ND	ND	ND	0.01/0.03
2.0	Phenolic compound as C ₆ H ₅ OH	ND	ND	ND	0.001/0.002
3.0	Total Coliform (MPN/100 ml)	392.67	752.67	1068.83	-

NR= No Relaxation. *Calcium as Ca, ** Magnesium as Mg


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Annexure-1

Env. STATEMENT for CTO Compliance for the period April 2024 – September 2024 for

Ammonia –Urea (2200 MTPD & 3850 MTPD) plant of HURL at Barauni

TABLE - 5

Flue Gas Monitoring Assessment Schedule

Sr. No.	Source	Parameters	Frequency
1.	Primary Reformer	SPM, SO _x , NO _x & CO	Twice in a Month
2.	Prill Tower	SPM & Ammonia	Twice in a Month
3.	HRSG-1	SPM, SO _x , NO _x & CO	Twice in a Month
4.	HRSG-2	SPM, SO _x , NO _x & CO	Twice in a Month


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Env. STATEMENT for CTO Compliance for the period April 2024 – September 2024 for
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HURL BARAUNI, Flue Gas Monitoring Data Average Result (April 2024 to September 2024)

(Results are expressed in mg/l, unless otherwise stated)

Month	Parameters		NAAQS	Primary Reformer	HRSG-1	HRSG-2
			Standards			
April 2024	PM10	mg/Nm ³	-	ND (DL-5)	ND (DL-5)	ND (DL-5)
	NO _x		-	60	70	64
	SO ₂		-	7	6	6
	CO		-	ND (DL-1)	7	13
May 2024	PM10	mg/Nm ³	-	ND (DL-5)	ND (DL-5)	ND (DL-5)
	NO _x		-	58	69	61
	SO ₂		-	7	4	5
	CO		-	ND (DL-1)	9	10
June 2024	PM10	mg/Nm ³	-	ND (DL-5)	ND (DL-5)	ND (DL-5)
	NO _x		-	48	56	61
	SO ₂		-	6	7	5
	CO		-	ND (DL-1)	9	13
July 2024	PM10	mg/Nm ³	-	ND (DL-5)	ND (DL-5)	ND (DL-5)
	NO _x		-	44	52	55
	SO ₂		-	5	6	7
	CO		-	ND (DL-1)	7	13
Aug 2024	PM10	mg/Nm ³	-	ND (DL-5)	ND (DL-5)	ND (DL-5)
	NO _x		-	44	53	52
	SO ₂		-	5	7	8
	CO		-	ND (DL-1)	7	13
Sep 2024	PM10	mg/Nm ³	-	ND (DL-5)	ND (DL-5)	ND (DL-5)
	NO _x		-	60	70	64
	SO ₂		-	7	6	6
	CO		-	ND (DL-1)	8	14
Average	PM10	mg/Nm ³	-	ND (DL-5)	ND (DL-5)	ND (DL-5)
	NO _x		-	52.33	61.66	59.50
	SO ₂		-	6.16	6.00	6.16
	CO		-	ND (DL-1)	7.83	12.66

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Env. STATEMENT for CTO Compliance for the period April 2024 – September 2024 for
Ammonia –Urea (2200 MTPD & 3850 MTPD) plant of HURL at Barauni

HURL BARAUNI, Flue Gas Monitoring Data Average Result (April 2024 to September 2024)

(Results are expressed in mg/l, unless otherwise stated)

Month	Parameters		NAAQS	Prill Tower
			Standards	
April 2024	PM10	mg/Nm ³	-	33
	NH ₃		-	44
May 2024	PM10	mg/Nm ³	-	39
	NH ₃		-	42
June 2024	PM10	mg/Nm ³	-	46
	NH ₃		-	52
July 2024	PM10	mg/Nm ³	-	43
	NH ₃		-	52
Aug 2024	PM10	mg/Nm ³	-	43
	NH ₃		-	53
Sep 2024	PM10	mg/Nm ³	-	33
	NH ₃		-	44
Average	PM10	mg/Nm ³	-	39.50
	NH ₃		-	47.83


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Annexure-1

Env. STATEMENT for CTO Compliance for the period October 2024 - March 2025 for Ammonia -Urea (2200 MTPD & 3850 MTPD) plant of HURL at Barauni

This Compliance Report is the fulfilments of the condition of the Environmental Clearance (EC) vide File No. EC [IA/BR/IND2/61377/2016, J-11011/371/2016-1A II (I)] for the period of October 2024 - March 2025. This report has been prepared by Go Green Mechanisms Pvt Ltd by collecting respective samples in consultation with the State Pollution Control Board (SPCB) officials and Hindustan Urvarak and Rasayan Limited (HURL) officials. During the above mentioned period the analysis of the environmental parameters has been conducted by the MOEF&CC recognized Laboratory at Go Green Mechanisms Pvt Ltd, Ahmedabad.

The proposed project is located at Barauni and was commissioned on 18 November 2022 with the capacity of 2200MTPD Ammonia and 3850MTPD Urea in the District Begusarai in the state of Bihar. The commercial production has started from 19 November 2022 with the board name APNA UREA. The area falls in the agricultural belt of the Bihar.


The compliance report fulfils the 19 Nos of Specific Conditions and 17 Nos. of General Conditions led by Ministry of Environment, Forests and Climate Change Rainwater Harvesting and Ground Water charging has been proposed as per Standard Guidelines:

- Guidelines on Artificial Recharge of Water, Central Water Ground Board, Ministry of Water Resources, Govt (2000)
- Manual on Artificial Recharge of Ground Water, Central Water Ground Board, Ministry of Water Resources, Govt (2007)
- Rain Water Harvesting and Conservation Manual Consultancy Services Organization, CPWD, Govt (2002)

The Environmental Monitoring report of 6 months w.r.t Air, Water and Noise have been presented separately with the average values. The environmental conditions and the compliance have been found normal as per the Standards. The Air Quality results have been presented through a self-explanatory table with the NAAQ Standards w.r.t the parameter PM10, PM2.5, NOx, SOx, C6H6, CO Benzo(a) pyrene (BAP), NH3, Ozone, Nickel, Arsenic and Lead. Three sets each of Ground Water Samples and Surface Water Samples have been collected, analyzed in a self-explanatory table, and compared with Drinking Water Standards (IS:10500:2012). The analysis consists of eight nos. of physical parameters, thirteen no's of chemical parameters, nine no's of Heavy metals and three no's of miscellaneous parameters. Noise Quality has also been measured at six different locations in the periphery of the project area. The results have been presented through self-explanatory table consisting of the Standard NAAQS w.r.t noise.



For GO GREEN MECHANISMS PVT. LTD.


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हिंदुस्तान उर्वरक & रसायन लिमिटेड
(संयोजित, नवीनगढ़, राष्ट्रीय राजमार्ग 8 वाराणसी बस स्टैंड पास)
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The below report with respect to Air, Water and Noise represents the average values of different sampling stations collected at different time during the study period of October 2024 - March 2025.

TABLE -1

Location of Air Quality Monitoring Stations

Sr. No.	Location of Station	Frequency
1.	HURL Admin Building(SA1)	Twice a Week
2.	HURL Township(SA2)	Twice a Week
3.	Chakiya Village (SA3)	Twice a Week
4.	Bihat Village (SA4)	Twice a Week
5.	Simiriya Village (SA5)	Twice a Week
6.	Chackball Village(SA6)	Twice a Week



For. GO GREEN MECHANISMS PVT. LTD.


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 बीनी (विगत) ८५१११५

Month	Parameters	Units	NAAQS Standards	HQRI Admin Building(SA1)	HQRI Township (SA2)	Chakri Village (SA3)	Bhart Village (SA4)	Samariya Village (SA5)	Crackee Village(SA6)
Dec-24	PM ₁₀	µg/m ³	100	72.91	70.93	72.59	71.76	72.42	73.62
	PM _{2.5}	µg/m ³	60	39.14	36.42	38.69	35.88	36.3	37.63
	SO ₂	µg/m ³	80	17.49	18.79	19.62	19.21	15.3	19.63
	NO ₂	µg/m ³	80	33.2	31.58	34.62	31.27	26.98	35.75
	Ozone	µg/m ³	180	21.35	20.28	21.33	20.23	11.95	22.84
	Ammonia	µg/m ³	400	17.86	19.2	18	16.36	15.21	18.81
	Carbon Monoxide	mg/m ³	4	0.53	0.57	0.56	0.54	0.58	0.57
	Benzene	µg/m ³	5	BQL (QL=2.5)	BQL (QL=2.5)	BQL (QL=2.5)	BQL (QL=2.5)	BQL (QL=2.5)	BQL (QL=2.5)
	Benzo(a) pyrene	ng/m ³	1	BQL (QL=0.5)	BQL (QL=0.5)	BQL (QL=0.5)	BQL (QL=0.5)	BQL (QL=0.5)	BQL (QL=0.5)
	Nickel	ng/m ³	20	BQL (QL=5)	BQL (QL=5)	BQL (QL=5)	BQL (QL=5)	BQL (QL=5)	BQL (QL=5)
Jan-25	Arsenic	ng/m ³	6	BQL (QL=1)	BQL (QL=1)	BQL (QL=1)	BQL (QL=1)	BQL (QL=1)	BQL (QL=1)
	Lead	µg/m ³	1	BQL (QL=0.001)	BQL (QL=0.001)	BQL (QL=0.001)	BQL (QL=0.001)	BQL (QL=0.001)	BQL (QL=0.001)
	PM ₁₀	µg/m ³	100	73.71	76.56	73.96	76.27	76.57	75.96
	PM _{2.5}	µg/m ³	60	39.67	39.99	38.22	43.16	41.39	41.12
	SO ₂	µg/m ³	80	16.52	18.22	16.65	15.86	18.02	16.35
	NO ₂	µg/m ³	80	28.51	27.47	24.17	25.43	27.2	25.76
	Ozone	µg/m ³	180	14.94	16.81	15.09	16.03	18.35	16.83
	Ammonia	µg/m ³	400	19.97	20.56	19.11	21.39	22.58	21.55
	Carbon Monoxide	mg/m ³	4	0.55	0.62	0.56	0.56	0.71	0.62
	Benzene	µg/m ³	5	BQL (QL=2.5)	BQL (QL=2.5)	BQL (QL=2.5)	BQL (QL=2.5)	BQL (QL=2.5)	BQL (QL=2.5)
	Benzo(a) pyrene	ng/m ³	1	BQL (QL=0.5)	BQL (QL=0.5)	BQL (QL=0.5)	BQL (QL=0.5)	BQL (QL=0.5)	BQL (QL=0.5)
	Nickel	ng/m ³	20	BQL (QL=5)	BQL (QL=5)	BQL (QL=5)	BQL (QL=5)	BQL (QL=5)	BQL (QL=5)
	Arsenic	ng/m ³	6	BQL (QL=1)	BQL (QL=1)	BQL (QL=1)	BQL (QL=1)	BQL (QL=1)	BQL (QL=1)
	Lead	µg/m ³	1	BQL (QL=0.001)	BQL (QL=0.001)	BQL (QL=0.001)	BQL (QL=0.001)	BQL (QL=0.001)	BQL (QL=0.001)



FOR GO GREEN MECHANISMS PVT. LTD.

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આચાર્ય, એન્જીનિયરિંગ, & ડા. અમી શિખર
રિજિસ્ટર્ડ સર્વિસ ડા. અમી શિખર
સર્વિસ, એન્જીનિયરિંગ, એન્જીનિયરિંગ & અમી શિખર
સર્વિસ (સર્વિસ) 8511115

Month	Parameters	NAAQS Standard	HURL Admin Building(SA1)	HURL Township (SA2)	Chakya Village (SA3)	Binat Village (SA4)	Saranya Village (SA5)	Chakhat Village(SA6)
Feb-25	PM ₁₀	100	71.09	73.44	65.81	74.44	70.55	74.36
	PM _{2.5}	60	39.42	41.29	35.04	41.71	38.69	41.29
	SO ₂	80	14.76	17.07	13.62	16.9	15.63	17
	NO ₂	80	24.28	27.3	23.09	27.03	25.14	27.28
	Ozone	180	14.01	15.92	12.66	16.04	14.89	16
	Ammonia	400	17.32	20.27	18.01	18.54	20.09	19.87
	Carbon Monoxide	4	0.56	0.59	0.53	0.56	0.57	0.58
	Benzene	5	BQL (QL=2.5)	BQL (QL=2.5)	BQL (QL=2.5)	BQL (QL=2.5)	BQL (QL=2.5)	BQL (QL=2.5)
	Benzo(a) pyrene	1	BQL (QL=0.5)	BQL (QL=0.5)	BQL (QL=0.5)	BQL (QL=0.5)	BQL (QL=0.5)	BQL (QL=0.5)
	Nickel	20	BQL (QL=5)	BQL (QL=5)	BQL (QL=5)	BQL (QL=5)	BQL (QL=5)	BQL (QL=5)
Mar-25	Arsenic	6	BQL (QL=1)	BQL (QL=1)	BQL (QL=1)	BQL (QL=1)	BQL (QL=1)	BQL (QL=1)
	Lead	1	BQL (QL=0.001)	BQL (QL=0.001)	BQL (QL=0.001)	BQL (QL=0.001)	BQL (QL=0.001)	BQL (QL=0.001)
	PM ₁₀	100	75.05	80.65	69.82	72.63	76.86	77.04
	PM _{2.5}	60	41.66	44.94	37.65	39.94	43.69	42.91
	SO ₂	80	16.57	18.93	15.04	14.53	16.98	16.78
	NO ₂	80	25.84	28.82	24.68	24.29	26.82	26.75
	Ozone	180	16.57	19.17	15.99	15.4	17.73	16.96
	Ammonia	400	15.36	17.56	15.53	14.87	17.73	18.09
	Carbon Monoxide	4	0.58	0.64	0.55	0.58	0.62	0.6
	Benzene	5	BQL (QL=2.5)	BQL (QL=2.5)	BQL (QL=2.5)	BQL (QL=2.5)	BQL (QL=2.5)	BQL (QL=2.5)
	Benzo(a) pyrene	1	BQL (QL=0.5)	BQL (QL=0.5)	BQL (QL=0.5)	BQL (QL=0.5)	BQL (QL=0.5)	BQL (QL=0.5)
	Nickel	20	BQL (QL=5)	BQL (QL=5)	BQL (QL=5)	BQL (QL=5)	BQL (QL=5)	BQL (QL=5)
	Arsenic	6	BQL (QL=1)	BQL (QL=1)	BQL (QL=1)	BQL (QL=1)	BQL (QL=1)	BQL (QL=1)
	Lead	1	BQL (QL=0.001)	BQL (QL=0.001)	BQL (QL=0.001)	BQL (QL=0.001)	BQL (QL=0.001)	BQL (QL=0.001)



For: GO GREEN MECHANISMS PVT. LTD.

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Month	Parameters	NAAQS	HUPJ Admin Building (SA1)	HUPJ Township (SA2)	Chakya Village (SA3)	Bhat Village (SA4)	Simeriya Village (SA5)	Chackabai Village (SA6)
		Standards						
Average October	PM ₁₀	µg/m ³ 100	71.73	73.85	70.83	73.24	73.00	73.79
	PM _{2.5}	µg/m ³ 60	38.22	38.81	36.89	38.52	38.28	38.83
	SO ₂	µg/m ³ 80	15.79	17.22	15.76	15.95	15.88	16.46
	NO ₂	µg/m ³ 80	26.34	26.70	25.56	26.01	25.32	26.93
	Ozone	µg/m ³ 180	15.57	16.63	15.27	15.81	15.18	16.84
2024 - March (2025)	Ammonia	µg/m ³ 400	15.34	17.26	15.90	16.27	16.99	16.99
	Carbon Monoxide	mg/m ³ 4	0.57	0.60	0.53	0.57	0.61	0.59
	Benzene	µg/m ³ 5	BQL (QL=2.5)	BQL (QL=2.5)	BQL (QL=2.5)	BQL (QL=2.5)	BQL (QL=2.5)	BQL (QL=2.5)
	Benz(a) pyrene	ng/m ³ 1	BQL (QL=0.5)	BQL (QL=0.5)	BQL (QL=0.5)	BQL (QL=0.5)	BQL (QL=0.5)	BQL (QL=0.5)
	Nickel	ng/m ³ 20	BQL (QL=5)	BQL (QL=5)	BQL (QL=5)	BQL (QL=5)	BQL (QL=5)	BQL (QL=5)
	Arsenic	ng/m ³ 6	BQL (QL=1)	BQL (QL=1)	BQL (QL=1)	BQL (QL=1)	BQL (QL=1)	BQL (QL=1)
	Lead	µg/m ³ 1	BQL (QL=0.001)	BQL (QL=0.001)	BQL (QL=0.001)	BQL (QL=0.001)	BQL (QL=0.001)	BQL (QL=0.001)



FOR GO GREEN MECHANISMS PVT. LTD.

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श्री. विद्या
प्रमुख, क्वालिटी प्रमाणन, ई & एमसी डिपार्ट
रिसर्च एवं डेवलपमेंट & रिसर्च डिपार्टमेंट
गो ग्रीन मेकैनिज्म्स प्राइवेट लिमिटेड (बिहार) 851115

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HURL Barauni, Noise data – (October 2024 - March 2025)

Month	Parameters	Prescribed Limit in dB(A) as per MAGS Industrial area	HURL Admin Building	HURL Township	Chakya Village	Bahat Village	Samirva Village	Chackball Village
Oct-24	24 hrs. Avg Leq Value dB(A)	-	67.0	66.8	65.0	72.0	63.3	63.7
	Day time dB (A) Leq	75	68.8	68.6	66.7	73.7	65.1	65.4
	Night time dB (A) Leq	70	52.3	45.0	52.8	54.3	43.2	46.1
Nov-24	24 hrs. Avg Leq Value dB(A)	-	67.6	69.3	67.5	69.9	62.6	60.0
	Day time dB (A) Leq	75	69.1	71.0	68.8	71.6	64.2	61.5
	Night time dB (A) Leq	70	60.4	55.4	63.0	56.8	53.1	53.0
Dec-24	24 hrs. Avg Leq Value dB(A)	-	67.3	69.2	67.2	70.0	62.6	60.1
	Day time dB (A) Leq	75	68.8	70.9	68.5	71.6	64.2	61.5
	Night time dB (A) Leq	70	60.3	56.2	61.8	61.2	53.1	53.0
Jan-25	24 hrs. Avg Leq Value dB(A)	-	65.3	67.9	67.3	67.8	62.2	60.6
	Day time dB (A) Leq	75	66.8	69.6	68.9	69.4	63.8	62.2
	Night time dB (A) Leq	70	58.2	55.3	58.8	59.1	52.5	51.8
Feb-25	24 hrs. Avg Leq Value dB(A)	-	64.2	68.1	61.6	66.0	59.9	60.3
	Day time dB (A) Leq	75	65.8	69.8	63.2	67.7	61.5	61.9
	Night time dB (A) Leq	70	55.8	57.2	53.7	52.1	48.6	52.2
Mar-25	24 hrs. Avg Leq Value dB(A)	-	64.6	63.3	60.6	62.1	59.5	61.0
	Day time dB (A) Leq	75	66.1	65.0	62.1	63.6	61.1	62.6
	Night time dB (A) Leq	70	57.9	52.4	53.3	53.0	49.5	51.5
Average	24 hrs. Avg Leq Value dB(A)	-	66.0	67.4	64.9	68.0	61.7	61.0
	Day time dB (A) Leq	75	67.6	69.2	66.4	69.6	63.3	62.5
	Night time dB (A) Leq	70	57.5	53.6	57.2	56.1	50.0	51.3



સાત્ત્વ પાસ્ટ
તમારું સ્થાન સુધારવાનું, કે જે અમી સ્થાન
પરિવર્તનના ઉદ્દેશ્યો કે સ્થાનના પરિવર્તન
(દાખલ, અદાલત, પબ્લિક, ગુપ્ત) કે સ્થાનના નાશ કે
અન્ય (કોઈ) 8511115

FOR: GO GREEN MECHANISMS PVT. LTD.

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Location of Ground water Monitoring Stations

Sr. No.	Source	Parameters	Frequency
1.	HURL Plant Nr. Main gate (Bore-well)	As per (IS:10500)	Once in a Month
2.	HURL Township (Guest House) (Bore-Well)	As per (IS:10500)	Once in a Month
3.	Chakiya Village (Hand Pump)	As per (IS:10500)	Once in a Month



For, GO GREEN MECHANISMS PVT. LTD.


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प्रबंधक, केन्द्रीय प्रयोगशाला, ई & क्यूसी विभाग
हिंदुस्तान उर्वरक & रसायन लिमिटेड
(प्रिन्सिपल, बॉम्बेई, स्टॉक, एन्डोमोर्फ & एन्डोमोर्फ व एन एन एन)
बरोनी (मिहलर) 851115

Sr No.	Parameters	Unit	Township (Guest House)	Chakya Village	Nr. Main gate	AL	PL
1	Alkalinity as CaCO3	mg/L	352.67	377.00	338.83	200	600
2	Calcium	mg/L	111.09	110.59	111.08	75	200
3	Chloride	mg/L	38.32	138.80	33.24	250	1000
4	Color	CU	BQL (QL=2.5)	BQL (QL=2.5)	BQL (QL=2.5)	5	15
5	Fluoride	mg/L	0.46	0.50	0.21	1	1.5
6	Mg	mg/L	30.17	49.90	34.30	30	100
7	Odour	-	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
8	Oil & Grease	mg/L	BQL (QL=1)	BQL (QL=1)	BQL (QL=1)	NS	NS
9	pH	-	7.51	7.61	7.64	6.5-8.5	No relaxation
10	Silica	mg/L	7.26	2.85	14.37	NS	NS
11	Sulphate	mg/L	28.61	53.91	17.64	200	400
13	Taste	-	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
14	Temperature	oC	25.77	25.75	25.47	NS	NS
15	TDS	mg/L	539.00	715.50	531.83	500	2000
16	TSS	mg/L	BQL (QL=5)	BQL (QL=5)	BQL (QL=5)	NS	NS
17	Total Hardness	mg/L	401.33	480.17	415.67	200	600
18	Turbidity	NTU	2.19	1.17	2.48	1	5
19	Total Alkalinity	mg/L	BQL(QL=2)	BQL(QL=2)	BQL(QL=2)	NS	NS
20	Arsenic as As	mg/L	0.01	0.01	0.01	0.01	0.05
21	Cadmium as Cd	mg/L	BQL(QL=0.002)	BQL (QL=0.002)	BQL(QL=0.002)	0.003	No relaxation
22	Total Chromium as Cr	mg/L	BQL (QL=0.02)	BQL (QL=0.02)	BQL (QL=0.02)	0.05	No relaxation
23	Copper as Cu	mg/L	BQL (QL=0.02)	BQL (QL=0.02)	BQL (QL=0.02)	0.05	1.5
24	Iron as Fe	mg/L	0.05	0.07	0.05	0.3	No relaxation
25	Lead as Pb	mg/L	BQL(QL=0.005)	BQL (QL=0.005)	BQL(QL=0.005)	0.01	No relaxation
26	Manganese As Mn	mg/L	BQL (QL=0.05)	0.32	0.20	0.1	0.3
27	Nickel as Ni	mg/L	BQL (QL=0.01)	BQL (QL=0.01)	BQL (QL=0.01)	0.02	No relaxation
28	Zinc as Zn	mg/L	BQL (QL=0.02)	BQL (QL=0.02)	BQL (QL=0.02)	5	15
29	Potassium as K	mg/L	2.92	4.57	3.17	NS	NS
30	Sodium As Na	mg/L	27.59	71.31	22.33	NS	NS
31	Nitrate	mg/L	2.70	0.49	0.52	45	No relaxation
32	Total Coliform	MPN per 100ml	BQL(QL=2)	BQL(QL=2)	BQL(QL=2)	Absent	Absent



શ્રીનુ પિણ્ગા
મલકે સ્થાન પ્રાપ્તિ, ૬ & ૭ વર્ગી વિદ્યા
પિણ્ગાના જન્મકાંડે સ્વામીના પિણ્ગા
(દેવતા, પ્રભુ, સ્થાન પ્રાપ્તિ)ના સ્થાન પ્રાપ્તિ
સર્વોત્ક્રમ (પિણ્ગા) 851115

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TABLE -4

Location of Surface water Monitoring Stations

Sr. No.	Source	Parameters	Frequency
1.	Ganga River	As per (IS:10500)	Once in a Month
2.	Bihat Pokhar	As per (IS:10500)	Once in a Month
3.	Baya Nallah	As per (IS:10500)	Once in a Month



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हिंदुस्तान जर्बरक & स्थापन लिमिटेड
(सीमेंट, अहमदाबाद, गुजरात, एम्पीएस ई एम्पीएस का एक संयुक्त कार्य)
बरोनी (बिहार) 851115

Sr No	Parameters	Unit	Ganga River	Bhital Pothar	AL	PL
1	Alkalinity as CaCO3	mg/L	84.33	235.67	200	600
2	BOD at 27°C for 3 days	mg/L	7.87	6.42	75	200
3	Calcium as Ca	mg/L	36.41	70.40	250	1000
4	Chemical Oxygen Demand (COD)	mg/L	35.33	26.00	5	15
5	Chloride	mg/L	59.40	138.04	1	1.5
6	Colour	CU	BQL (QL=2.5)	BQL (QL=2.5)	30	100
7	Fluoride	mg/L	0.20	0.63	Agreeable	Agreeable
8	Magnesium as Mg	mg/L	13.97	24.46	NS	NS
9	Oil & Grease	mg/L	BQL (QL=1)	BQL (QL=1)	6.5-8.5	No relaxation
10	pH	-	7.45	7.44	NS	NS
11	Sulphate	mg/L	20.41	17.73	200	400
12	Temperature	°C	25.60	25.75	Agreeable	Agreeable
13	TDS	mg/L	247.83	566.50	NS	NS
14	TSS	mg/L	12.68	13.67	500	2000
15	Total Hardness	mg/L	166.67	276.33	NS	NS
16	Turbidity	NTU	38.85	3.78	200	600
17	Dissolved Oxygen	mg/L	6.33	6.50	1	5
18	Arsenic as As	mg/L	BQL (QL=0.005)	BQL (QL=0.005)	NS	NS
19	Cadmium as Cd	mg/L	BQL (QL=0.002)	BQL (QL=0.002)	0.01	0.05
20	Chromium as Cr	mg/L	BQL (QL=0.02)	BQL (QL=0.02)	0.003	No relaxation
21	Copper as Cu	mg/L	BQL (QL=0.02)	BQL (QL=0.02)	0.05	No relaxation
22	Iron as Fe	mg/L	BQL (QL=0.05)	BQL (QL=0.05)	0.05	1.5
23	Lead as Pb	mg/L	BQL (QL=0.005)	BQL (QL=0.005)	0.3	No relaxation
24	Manganese As Mn	mg/L	BQL (QL=0.05)	BQL (QL=0.05)	0.01	No relaxation
25	Nickel as Ni	mg/L	BQL (QL=0.01)	BQL (QL=0.01)	0.1	0.3
26	Zinc As Zn	mg/L	BQL (QL=0.02)	BQL (QL=0.02)	0.02	No relaxation
27	Potassium As K	mg/L	4.26	20.22	5	15
28	Sodium As Na	mg/L	11.07	75.66	NS	NS
29	Nitrate	mg/L	2.62	4.45	NS	NS
30	Total Coliform	MPN per 100ml	30.00	29.67	45	No relaxation



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उत्तरक, श्रीनू प्रजापति, ई. डी. कृष्णी विमान
मिडल-एयर उदरक छै रसायन टेक्निक्स
(इंजीन, मॉडेल्स, एम्बेल्, ग्राफिक) हें एन्टरटेनमेन्ट अण्ड ग्रेजुअल
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Sr No.	Parameters	Unit	Days Nallah	Norms
1	Alkalinity as CaCO ₃	mg/L	154.83	-
2	BOD at 27°C for 3 days	mg/L	8.83	30
3	Calcium as Ca	mg/L	45.49	-
4	Chemical Oxygen Demand (COD)	mg/L	38.00	250
5	Chloride	mg/L	34.07	-
6	Colour	CU	BQL (QL=2.5)	-
7	Fluoride	mg/L	0.16	2
8	Magnesium as Mg	mg/L	18.55	-
9	Oil & Grease	mg/L	BQL (QL=1)	10
10	pH	-	7.67	5.5 to 9.0
11	Sulphate	mg/L	22.10	-
12	Temperature	°C	26.20	-
13	TDS	mg/L	263.17	-
14	TSS	mg/L	14.50	100
15	Total Hardness	mg/L	190.17	-
16	Turbidity	NTU	0.10	-
17	Dissolved Oxygen	mg/L	4.67	-
18	Arsenic as As	mg/L	BQL (QL=0.005)	0.2
19	Cadmium as Cd	mg/L	BQL (QL=0.002)	2
20	Chromium as Cr	mg/L	BQL (QL=0.02)	2
21	Copper as Cu	mg/L	BQL (QL=0.02)	3
22	Iron as Fe	mg/L	BQL (QL=0.05)	3
23	Lead as Pb	mg/L	BQL (QL=0.005)	0.1
24	Manganese as Mn	mg/L	BQL (QL=0.05)	2
25	Nickel as Ni	mg/L	BQL (QL=0.01)	3
26	Zinc as Zn	mg/L	BQL (QL=0.02)	5
27	Potassium as K	mg/L	2.02	-
28	Sodium as Na	mg/L	16.07	-
29	Nitrate	mg/L	0.48	50
30	Total Coliform	MPN per 100ml	36.50	-



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हिन्दुस्तान उर्वरक & रसायन लिमिटेड
सिडकोट, बड़मेर, राजस्थान-342001
बरोनी (विहार) 851115

TABLE -5

Location of Flue Gas Monitoring Stations

Sr. No.	Source	Parameters	Frequency
1.	HRSG -01	PM, SO _x , NO _x & CO	Twice in a Month
2.	HRSG -02	PM, SO _x , NO _x & CO	Twice in a Month
3.	Primary Reformer	PM, SO _x , NO _x & CO	Twice in a Month
4.	UREA Prill Tower	PM, NH ₃	Twice in a Month

Month	Parameter	HRSG -01	HRSG -02	Primary Reformer	UREA Prill Tower
Oct-24	PM (mg/Nm ³)	3.25	4.20	3.60	43.00
	Sox (ppm)	3.50	4.50	4.50	-
	NO _x (ppm)	63.00	59.00	30.50	-
	CO (mg/Nm ³)	14.30	14.35	25.40	-
	NH ₃ (mg/Nm ³)	-	-	-	60.00
Nov-24	PM (mg/Nm ³)	3.50	4.00	3.70	41.65
	Sox (ppm)	3.50	3.00	3.50	-
	NO _x (ppm)	65.00	45.50	37.50	-
	CO (mg/Nm ³)	18.90	20.60	27.50	-
	NH ₃ (mg/Nm ³)	-	-	-	47.95
Dec-24	PM (mg/Nm ³)	4.40	3.98	4.53	41.40
	Sox (ppm)	4.50	3.50	5.50	-
	NO _x (ppm)	76.00	70.50	40.00	-
	CO (mg/Nm ³)	18.90	19.50	16.60	-
	NH ₃ (mg/Nm ³)	-	-	-	46.90
Jan-25	PM (mg/Nm ³)	4.20	4.75	3.65	47.40
	Sox (ppm)	5.00	4.00	3.50	-
	NO _x (ppm)	61.00	66.00	39.50	-
	CO (mg/Nm ³)	22.90	22.35	26.35	-
	NH ₃ (mg/Nm ³)	-	-	-	48.90
Feb-25	PM (mg/Nm ³)	4.10	4.85	3.95	40.35
	Sox (ppm)	2.50	3.00	3.50	-
	NO _x (ppm)	48.50	68.00	35.50	-
	CO (mg/Nm ³)	17.75	22.35	29.80	-
	NH ₃ (mg/Nm ³)	-	-	-	46.80
Mar-25	PM (mg/Nm ³)	3.95	4.70	3.35	40.30
	Sox (ppm)	2.50	4.50	2.50	-
	NO _x (ppm)	41.00	56.50	36.50	-
	CO (mg/Nm ³)	14.30	21.75	25.20	-
	NH ₃ (mg/Nm ³)	-	-	-	39.10
Average	PM (mg/Nm ³)	3.90	4.41	3.80	42.35
	Sox (ppm)	3.58	3.75	3.83	-
	NO _x (ppm)	59.08	60.92	36.58	-
	CO (mg/Nm ³)	17.84	20.15	25.14	-
	NH ₃ (mg/Nm ³)	-	-	-	48.28



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(विपणन, बाईप्रोडक्ट एवं/वा अन्य उत्पादों के रसायनिक अथवा भौतिक गुण)
बनौनी (बिहार) 851115

For: GO GREEN MECHANISMS PVT. LTD.

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